

## **Appendix A**

### **Standard Operating Procedures: The Assessment & Planning Process**

#### **I. Assessment and Planning Priorities:**

Tidewater localities were required by the Chesapeake Bay Area Designation and Management Regulations (Regulations) to create and adopt a map delineating Chesapeake Bay Preservation Areas (CBPA). For implementation of the agricultural criteria, use of these locally approved maps is the least expensive and most efficient method to determine if agricultural land lies within a Resource Management Areas (RMA). Resource Protection Area (RPA) determinations should be field verified.) However, these maps do not constitute the last word, merely a rebuttable presumption. Conservation Planners, be they public servants or private contractors, should inform landowners and operators that they may rebut the local government's map determination for their properties. Landowners may request a more careful evaluation of their properties by the local government or have such an evaluation conducted by a consultant and submit the results to the locality for consideration.

Should the Conservation Planner performing the determination question the accuracy of the locally approved maps based on their field observation, they should request clarification from the locality. When determining the inclusion of a water feature within the RPA, the Conservation Planner should use caution and include the feature, or request a delineation from the locality or submit their own delineation to the locality for approval. Amendments to the Regulations further clarify that once the agricultural activity ceases, the full 100-foot buffer should be established where it does not exist.

#### **A. Localities should prioritize assessments and planning in the following manner:**

1. RPA<sup>1</sup> tracts<sup>2</sup> and associated RMA fields;
2. RMA tracts<sup>3</sup> and associated RMA fields;
3. Locality priorities, e.g. plans required for biosolids applications, watershed protection, etc.:

#### **Suggested Order Within Priorities:**

- a) High Priority Watersheds (DCR's prioritization for the subwatersheds), Farms adjacent to 303d stream segments, CREP candidates, etc.;
- b) Complaint Driven;
- c) "Walk-Ins" on a first come, first served basis.

## **II. Assessment Process for the Conservation Planner:**

### **A. Obtain all needed mapping:**

1. Aerial Maps from NRCS<sup>4</sup> or FSA;<sup>5</sup>
2. Tax maps from the local commissions of the revenue;
3. Topographic maps from the local Soil & Water Conservation District or private sources;
4. Soils Map from NRCS.

**B. Identify Landowners<sup>6</sup> and Operators<sup>7</sup>** via the use of county tax records. Unlike federal programs, the responsibility for compliance with the local criteria rests with the owner of record, and not the operator.

**C. Obtain permission to visit the property** via letter, other written or verbal communication. Visiting farms without permission from the landowner could place the conservation planner at risk for legal action from the landowner. If the landowner fails to respond to the conservation planners initial inquiry requesting permission to visit the property, the conservation planner may follow-up with a certified letter to the landowner requesting such permission, forwarding a copy to the local program contact.<sup>8</sup> The letter should contain: a response deadline, the complete parcel identification number and the name and address of the owner of record, and an explanation of the need for the visit. Should the landowner fail to respond to the certified letter, the conservation planner will notify the locality and the CBLAD in writing.

### **CBLAD Suggested Actions:**

1. After receiving such notifications, the County will follow-up on each case within 60 days and apprise the local SWCD Board of its course of action. The locality's actions will depend upon the local ordinance.
2. The locality's local program contact will contact the landowner and review the local criteria and suggest a meeting between the conservation planner/locality/landowner. Should the landowner fail to cooperate, the locality should take appropriate enforcement actions.

### **D. Field Visit to Determine Current BMP Implementation Compliance**

Equipment/materials needed: clinometer or Abney Level, rangefinder, aerial map with potential RPAs highlighted, other materials as needed.

1. **Determine if agricultural activities are currently being conducted** on the land. If such activities are not being conducted, the locality or conservation planner should amend their record of individuals impacted by the agricultural criteria of the Local Bay Act Program. Of course, the locality will require that the

100-foot wide buffer be maintained where it exists and established where it does not exist.

2. Land that is not actively being farmed, and whose owner did not express an interest in beginning or resuming agricultural activities, is considered “idle” and need not be assessed or planned. The conservation planner and/or the locality should inform the landowner that prior local approval will be necessary before agricultural activities can be pursued on the property.

3. For those lands where on-going agricultural activities are being conducted, the conservation planner will begin the soil and water quality assessment:

#### E. **Buffer Width Determination:**

##### The Buffer:

- Farmers were required to establish necessary 100-foot wide vegetated buffer areas with the first crops planted following adoption of local Preservation Act Programs by their local governments. All treatment levels required by the Act are measured against the water quality effectiveness of the 100-foot buffer. The installation or implementation of BMPs is recommended, but is only required when a landowner wishes to reduce the buffer width.
- Agricultural lands which are **currently** in production, and are contained within the Resource Protection Area (RPA), may stay in production. Buffer areas must be established at the side of the field nearest the stream, wetland or other non-agricultural RPA feature. If there are no such features, a buffer will not be required. If agricultural use is discontinued for a significant period, as detailed by local zoning codes, the full RPA designation will apply.
- Agricultural **drainage ditches** that have perennial flow, and are considered as an RPA feature, are exempt from the buffer requirements if BMPs are implemented to a level equivalent to the 100-foot buffer and a soil and water quality conservation plan has been approved by the Soil and Water Conservation District.
- Buffer areas must be established to a permanent cover (e.g. grass, legumes, shrubs, trees, and/or any combination). Grasses and legumes can be harvested for hay or by grazing. Harvesting should not be allowed when it will conflict with an individual's obligations under USDA or state programs. Nurse or cover crops used to establish a permanent cover can also be harvested during the first year of establishment. Cover selection and management must be such that cover is sufficient to perform three functions: (1) reduce runoff volume (through enhanced infiltration); (2) filter pollutants from runoff; and (3)

prevent soil erosion.

1. Determine the width of the existing Buffer:

a) Measure the widths of the buffer area adjacent to the field<sup>9</sup>. If the buffer width, adjacent to all RPA features exceeds 100 feet in width, i.e., no crops are produced within the 100-foot wide buffer area, the field is a “RMA field.” The conservation planner will conduct an assessment to determine if the implementation of additional BMPs is necessary to protect water quality.

b) Using principles as outlined in the [“Buffer Area Delineation Guidance.”](#) determine the width of the existing buffer. For the purposes of conducting assessments, the development of conservation plans, and to maintain administrative ease, there are three categories of planned buffer width: 25 feet, 50 feet and 100 feet and over. Using the following methodologies, only one category should be assigned to each field:

(1) If the smallest width of the existing buffer in the field is 100 feet or more, the length field is an RMA field.

(2) If the smallest width of the existing buffer in the field is between 50 and 99 feet, the field is an RPA field. The landowner may, if they agree to implement an appropriate BMP, elect that the buffer width remain as is.

(3) If the smallest width of the existing buffer in the field is between 25 and 49 feet, the field is an RPA field. The landowner may, if they agree to implement a SWQCP, elect that the buffer width remain as is. (Where the existing buffer is less than 25’ in width, it must be amended to a minimum width of 25.’)

2. Determining the landowner’s desired buffer width.

The conservation planner should review all requirements with the landowner and document the landowner’s desired buffer width.

a) If the smallest width of the planned buffer in the field is 100 feet or more, the field is an RMA field. The conservation planner should complete the assessment and submit it to the SWCD Board for review.

b) If the smallest width of the planned buffer in the field is between 50 and 99 feet, the conservation planner and landowner should document the

implementation of an appropriate BMP and submit it to the SWCD Board for review.

c) If the smallest width of the planned buffer in the field is between 25 and 49 feet, the conservation planner and landowner should document the implementation of the appropriate BMPs in a SWQCP and submit it to the SWCD Board for review.

F. Erosion Control Assessment:

1. Does the field have a current NRCS FSA plan? If yes, there is no need to perform RUSLE; assess nutrient management BMPs. If not,

- a) Inspect the field for visual signs of gulley erosion, problem areas;
- b) Assign a LS value to the field;
- c) Delineate field boundaries on soil maps and estimate the areas of each mapping unit within the field (may have already been completed by the SWCD or NRCS). Using the following methodology which is similar to that found within the DCR's Virginia Nutrient Management Standards & Criteria, rev. 1995 page 4). If a field is comprised of multiple map units with multiple K and T values and no one K or T value comprises more than fifty percent of the field, the RUSLE calculations must be based on a weighted average yield of all K and T factors represented in the field;
- d) Using the field LS and the maximum K and T for the county, and using the formula:  $\text{Max Local T} + 25\% / (\text{Radj} * \text{max local K} * \text{Field LS} * \text{P})$ , Compute the value for the maximum "C to T" plus 25%

**If** this number is greater than the C factor for:

- (a) Spring Crop/Spring plow;
- (b) Fall Crop/Fall plow;
- (c) Summer Crop/no-till;

**Then**, Nutrient Management is the more "predominant water quality issue." Therefore, assess nutrient Management BMPs.

**If** this number is < the above,

**Then**, Erosion control is the "predominant water quality issue" Therefore, perform RUSLE, and evaluate as follows:

2. Erosion Control BMPs for given buffer widths:

Where the desired buffer is less than 100' in width, but greater than or equal to 25,' the landowner must ensure that:

- a) The buffer is managed in such a way as to prevent a concentrated flow of stormwater to the RPA feature;
- b) Tillage BMPs are implemented that, according to RULSE, will keep estimated soil loss or movement to less than "T" plus 25%.

3. The conservation planner will perform field specific RUSLE calculations, and complete assessment. Using the the "Soil & Water Quality Assessment Form" recommend tillage BMPs necessary to ensure estimated soil loss is less than "T + 25%"

#### G. Nutrient Management Assessment

Does the field have a current, nutrient management plan developed by a Virginia certified nutrient management planner? If yes, then assess erosion control BMPs. If no, then assess nutrient management BMPs.

- 1. Where the existing buffer is greater than or equal to 100,'
  - a) Determine if the landowner/farmer:
    - (1) Applies P and K to soil test recommendations;
    - (2) Applies N based on soils or crop yields;
    - (3) Splits N application on small grains and corn;
    - (4) If, landowner/farmer does not or is not aware of these BMPs, develop Nutrient Management Plan.
  - b) Nutrient Management BMPs for desired buffers that are 100' in width:

Map Soils: delineate field boundaries on soil maps and estimate the areas of each mapping unit within the field (may have already been completed by the SWCD or NRCS). As stated in DCR's Virginia Nutrient Management Standards & Criteria, rev. 1995 page 4), if a field is comprised of multiple map units with multiple productivity groups and no one productivity group comprises more than fifty percent of the field, the nutrient management plan must be based on a weighted average yield of all soil productivity groups represented in the field.

- 2. If the existing buffer => 50 feet select appropriate nutrient BMP.

- a) If nutrient leaching index is HIGH or VERY HIGH, then, BMPs

should include: for small grains to apply no more than 50 percent of the crops annual nitrogen needs before plant emergence AND to soil sample at least once per crop rotation;

b) If nutrient leaching index is less than HIGH, then, the minimum BMP is to soil sample at least once per crop rotation.

3. If the existing or desired buffer is less than 50 feet, a certified nutrient management plan must be developed in accord with the Virginia Nutrient Management Training and Certification Regulations(4VAC5-15).

## Appendix B

### **GUIDELINES FOR WRITING THE NUTRIENT MANAGEMENT COMPONENT OF A CHESAPEAKE BAY PRESERVATION ACT SOIL & WATER QUALITY CONSERVATION PLAN**

A nutrient management plan is written to indicate how primary nutrients (Nitrogen, Phosphorous and Potassium) are to be managed on agricultural lands in ways which protect groundwater and surface water from excessive nutrient enrichment. Nutrient management plans contain operating procedures based on expected crop yield, existing nutrient levels in the soil, organic residuals, optimum timing and placement of nutrients, environmental resource protection, and agronomic practices such as liming, tillage and crop rotation.

***ALL NUTRIENT MANAGEMENT PLANS MUST MEET THE STANDARDS AND CRITERIA CONTAINED IN VIRGINIA'S NUTRIENT MANAGEMENT TRAINING & CERTIFICATION REGULATIONS -- 4 VAC 5-15-10 et seq. These guidelines are a tool to assist planners with developing the nutrient management component of a Chesapeake Bay Preservation Act Soil & Water Quality Conservation Plan in accordance with the plan content and development standards and criteria found in the Nutrient Management Training and Certification Regulations, 4 VAC 5-15-10 et seq. (regardless of whether the planner is certified or not).***

**BELOW IS A SYNOPSIS OF THE INFORMATION THAT NUTRIENT MANAGEMENT PLANS MUST CONTAIN:**

#### **I. PLAN IDENTIFICATION (this can be in narrative and cover sheet form):**

- Farmer/Operator name and address;
- County and Watershed code of land under the nutrient management plan;
- Total acreage covered under the plan with double cropped acreage accounted for only once;
- Acreage of cropland, hay, pasture and speciality crops included in the plan for the first year of the plan;
- Date the plan was prepared or revised;
- Length of time the plan addresses (1 to 5 years); and
- Type and approximate number of livestock, if applicable;
- Name/Title/Address/Phone Number of plan writer; and
- Narrative that describes the operation and how to use the nutrient management plan

#### **II. MAP OR AERIAL PHOTOGRAPH:**



- Each plan shall contain a map or aerial photograph to identify:
  - C The tract location and boundaries;
  - C Individual field boundaries; and
  - C Field numbers and acreage.
- The map or aerial photograph shall be legible, with environmentally sensitive features clearly depicted. A farm sketch should be developed when a map or aerial photograph is unavailable.
- Soil maps and appropriate legends

### **III. REFERENCES AND RECOMMENDATIONS (Balance Sheet) SHALL INCLUDE:**

- Name of farmer/operator;
- Field identification numbers to include FSA Tract and Field Numbers;
- Field acreage;
- Expected crops or crop rotations:
  - C Obtain the appropriate crop or crop rotation information (by field) from the farmer during the initial interview.
  - C The first crop listed on the nutrient balance sheet should be the crop that the planner anticipates will receive the first nutrient application(s) post farmer receipt of the plan. For example, if a plan is written in June for a corn field, then the plan would begin with the next crop, e.g. wheat.
  - C All crops in the rotation should be listed in sequential form on the nutrient balance sheet, with appropriate nutrient needs and recommendations;
- Crop nutrient needs per acre based on soil analysis results and soil productivity;
- Legume nitrogen credits per acre;
- Organic (biosolids or manure) nutrient application rates in tons per acre or 1,000 gallons per acre; and plant available nitrogen as N, phosphorus as P<sub>2</sub>O<sub>5</sub>, and potassium as K<sub>2</sub>O per acre; and spreading schedule to include approximate months of application;
- Expected days for incorporation of organic nutrient sources into the soil if organic sources will be used;
- Commercial fertilizer rates and timing of applications, including split applications of nitrogen and the possible use of soil nitrogen test results on a field before sidedressing with nitrogen;
- Liming recommendations if pH is below the optimal range;
- The nutrient management planner should incorporate additional plan requirements as appropriate if required by other specific regulatory or incentive programs which apply to a specific operator.

#### IV. NUTRIENT APPLICATIONS:

A nutrient management planner shall include in each plan:

- Nutrient application practices for each field in the plan;
- Nutrient application rates shall be calculated for nitrogen (N), phosphate ( $P_2O_5$ ) and potash ( $K_2O$ );
- Consideration for nutrients contained in fertilizers, manure, biosolids, legumes in the crop rotation, crop residues, residual nutrients and all other sources of nutrients;
- If similar, individual fields may be grouped together. Similar fields would be fields which: share the same predominant soil type, have similar soil test levels and pH, are in the same crop and have the same environmentally sensitive features.

#### V. NUTRIENT APPLICATION RATES:

- Determination of nutrient needs shall be consistent with tables and procedures contained in the VA Nutrient Management Training & Certification Regulations (4 VAC 5-15-10 et seq.) and Standards and Criteria, the VA DCR Nutrient Management Handbook and the Commercial Vegetable Production Recommendations (VCES Publication 456-420).
- Crop nutrient needs **shall be based on soil test results** for  $P_2O_5$  and  $K_2O$ .

#### SOIL TESTS:

- C Recommendations **must** be made based on soil tests (that are less than 3 years old at the time the plan is written).
- C Soil tests must be able to be correlated to Virginia Tech=s Mehlick I phosphorus (A & L Labs, Brookside Labs - see Table 2/2A page 33 **VA NUTRIENT MANAGEMENT STANDARDS AND CRITERIA (revised November, 1995)**)
- C Soil test levels shall be based on Table 2, page 32, **VA NUTRIENT MANAGEMENT STANDARDS AND CRITERIA (revised November, 1995)**
- C Representative soil samples may be acceptable provided they represent no more than 40 acres (crop land) and 60 acres (hay/pasture land)

Definition of **representative soil sample**: a soil test (less than 3 years old at the time the plan is written) which represents the **AVERAGE** soil properties of a field/fields. Fields may be represented by 1 soil sample (if the total acreage is less than 40 acres cropland or 60 acres hay/pasture land) providing that:

- < the fields are in the same crop rotation,
  - < fields have similar characteristics (soil type/liming history/fertilizer application history)
  - < the sample has been taken from a representative portion of the acreage (not a problem area)
  - < the fields are in the same and/or adjoining tract(s)
  - < the farmer agrees to the soil test representation for more than 1 field
- Expected crop yield shall be determined from **past crop yields or soil productivity** on a given field. The farmer's past experience with crop yields in specific fields may be used to make reasonable adjustments to expected yields in lieu of verifiable yield records provided the upward adjustments impact no more than 20% if the fields on a particular farm.

C The calculation of expected yield shall:

- < Producer records - average of the 3 highest yields achieved over the last 5 years the particular crop was grown in the field. Find the corresponding soil productivity group and expected yield that most closely matches the yield. **or**
- < Be based on, and consistent with, soil productivity information contained in the VA Nutrient Management Training & Certification Regulations (4 VAC 5-15-10 et seq.) and Standards and Criteria or the VA DCR Nutrient Management Handbook.

**SOIL PRODUCTIVITY/EXPECTED YIELD (by crop)  
INFORMATION: (page 4 & Table 1-1, VA NUTRIENT MANAGEMENT STANDARDS AND CRITERIA (revised November, 1995))**

**Expected Yields for a field may be determined one of the following ways:**

- Weighted average of productivity of all soils in a field, or
- Predominant soil in a field - must comprise 50% or more of a field, or

**ADDITIONS OR SUBTRACTIONS TO EXPECTED YIELDS: (page 25, Table 1-4, VA NUTRIENT MANAGEMENT STANDARDS AND**

### **CRITERIA (revised November, 1995)**

- C If using soil productivity, yields should be:
  - C increased if field is irrigated (Table 1-3, page 24)
  - C increased if field has been artificially drained (either by subsurface A tile@ drainage or ditches)
  - C decreased if field has severe erosion, slope, coarse texture or rock outcrops
  - C decreased if farmer has no desire to achieve expected yields
- Recommended application rates for **potassium**, secondary nutrients and micronutrients should be at agronomically or economically justifiable levels for expected crop production. Agronomic rates are recommendations supplied by VA Tech based on current soil test levels. Economically justifiable rates are rates that the farmer and planner agree upon based on past yield history and past diagnosed deficiencies.
- **NITROGEN CREDIT FROM PREVIOUS LEGUME CROPS:**
  - C If a legume crop (such as soybeans or crimson clover) was the crop preceding the corn crop, nitrogen credits shall be calculated (Table 4, page 54) **VA NUTRIENT MANAGEMENT STANDARDS AND CRITERIA (revised November, 1995)**
  - C Total nitrogen needs required for the corn crop will be reduced by the amount of legume credit given.

EXAMPLE: Kempsville soil requires 120 to 140 lbs. Nitrogen. 140 pounds nitrogen MINUS 20 lbs. nitrogen credit from the previous soybean crop = 120 pounds commercial nitrogen recommended **for the corn.**

- **NUTRIENT AVAILABILITY FROM BIOSOLIDS OR MANURES (Table 5-1 through 5-8 and Table 6-1, pages 55-64), VA NUTRIENT MANAGEMENT STANDARDS AND CRITERIA (revised November, 1995):**
  - C Credits must be given for BOTH the nutrients available to the first crop after manure or biosolids are applied, AND either residual nutrients (if frequent application sites) or mineralization of nutrients after the application.

## VI. NUTRIENT APPLICATION TIMING:

- Recommendations pertaining to the timing of nutrient applications shall be as close to plant nutrient uptake periods as reasonably possible.
- Recommendations for split applications of inorganic nitrogen fertilizers shall be made as starter or broadcast, sidedress or topdress in row crops and small grains consistent with procedures in the VA Nutrient Management Training & Certification Regulations (4 VAC 5-15-10 et seq.) and Standards and Criteria or the VA DCR Nutrient Management Handbook.
- **Split applications** will be recommended on fields with a leaching index or 10 or above and on all environmentally sensitive areas as defined in the VA Nutrient Management Training & Certification Regulations (4 VAC 5-15-10 et seq.) and Standards and Criteria (definitions).

SOIL NITRATE LEACHING INDEX: (page 26 & Table 1-5, VA NUTRIENT MANAGEMENT STANDARDS AND CRITERIA (revised November, 1995))

- C Use hydrologic soil group: A, B, C, or D (find this in the soil survey table for each county)
- C Look up the county in which the field is located
- C Correlate leaching letter to leaching number
- C Determine the leaching index for the field (low/moderate/high/very high)

RECOMMEND SPLIT APPLICATIONS BASED ON LEACHING INDEX (all fields should have splits recommended, but they should be required when):

- C Soils have an index of high or very high in order to reduce the potential of nitrate leaching (sidedress/two topdress applications, etc.)

SOILS WHICH HAVE BEEN **ARTIFICIALLY DRAINED**:

- C Fields which have been artificially drained (either by ditches or drain tile) have a much greater potential for nitrogen leaving the field with the drained water. Split applications should always be recommended in this situation.
- Split applications of nitrogen will be made on fields that are irrigated. These recommendations should coincide with irrigation scheduling.
- Nutrient applications to frozen or snow covered ground should be avoided.

### ■ **DEFINITION OF STANDARD AND INTENSIVE WHEAT AND BARLEY:**

- C Standard wheat and barley is defined as one (1) topdress application in the

- spring
  - C Intensive wheat or barley is defined as two (2) topdress applications in the spring based on tiller counts at growth stage 25 (tillering) and tissue tests at growth stage 30 (just prior to jointing)

■ **NITROGEN NEEDS OF CORN BASED ON VALUES:**

- C Find expected yield and related productivity class using one of the methods listed previously
  - C Using Table 3 (page 34) in **VA NUTRIENT MANAGEMENT STANDARDS AND CRITERIA** (revised November, 1995) find the range in which the nitrogen recommendation falls:

EXAMPLE: Kempsville soil, productivity IIIa, N range = 120 to 140 pounds/acre

■ **RECOMMENDING FERTILIZER APPLICATION SPLITS ON A CORN CROP:**

**Fertilizer for a corn crop will be recommended using one or more of the following application methods, the rate per/acre for each application method used, should be listed individually on the balance sheet; total nutrients applied cannot exceed nutrient needs:**

- C **Starter** (banded) at planting - if used by farmer, is the placement of fertilizer two inches to the side and two inches below the seed, total plant food for this application should not exceed 60 lbs of nitrogen plus potash, as crop injury may occur above this rate.
  - C **Broadcast** (pre-emergence) - uniform application of material over a field, usually before crop has emerged or shortly thereafter. the recommendation shall be reflected on the nutrient balance sheet
  - C **Broadcast with pre-emergence herbicides** - uniform of material over a field, using water or liquid nitrogen as a carrier to apply the herbicides.
  - C **Sidedress** nitrogen - placement of fertilizer between rows of a crop, after the crop has emerged, the rate usually represents the majority of total recommended nitrogen.

**VI. NUTRIENT BALANCE SHEETS SHOULD INCLUDE:**

- FSA Tract and Field Numbers, FSA Field Acreage, Operators Field/Tract Identification
- Farmer/Operation Name/Date Plan Written or Revised

- Crop Rotation (for the length of plan - usually 3 years)
- Nutrient Needs (based on soil test and soil productivity or yield records)
- Nitrogen credit for legumes in rotation (soybeans/clover/alfalfa, etc.)
- Nutrient credits for manure or biosolid applications
- Residual nitrogen that will become available from manures/biosolids after first year
- Nutrient recommendations (for each crop throughout the length of the plan (usually 3 years)
- Appropriate nitrogen application splits (broadcast, starter, topdress or sidedress) and their timings for application for each crop listed (timing may be listed in a footnote)
- Appropriate footnotes (listed on each balance sheet) that more specifically define the recommendations
- Appropriate recommendations (totals of P & K required) for double cropped rotations AT THE TIME THEY SHOULD BE APPLIED.

## **VII. PLAN MAINTENANCE AND REVISIONS:**

- A site-specific nutrient management plan shall specify the length of the plan (from 1 to 5 years). Plans developed for a period of time greater than 3 years and up to 5 years should be limited to sites in pasture or hay crops.
- The plan shall indicate a need for modification if cropping systems, rotations, fields, animal numbers, animal type or management are changed, added, or removed.
- Soil analysis shall be recommended for each field at least every 3 years to determine the soil fertility and pH and to update the nutrient management plan.
- Modified topdressing or sidedressing application rates of nitrogen may be recommended if a pre-sidedress nitrogen test (corn) or tissue test (small grain) administered during the growing season indicates different levels of nitrogen than are listed in the plan.

## Endnotes

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<sup>1</sup> A RPA tract is a tract of land that contains at least one field, or portion thereof, that is located in the locally designated Resource Protection Area (Chesapeake Bay Preservation Act Agricultural Program Guidance, I: Programs\Agriculture\98CNTRCT\Proguide.wpd; May 1997.)

<sup>2</sup> Tract: A defined area of land (Merriam-Webster's Collegiate Dictionary, tenth ed.); A unit of contiguous land that is both of the following: under one ownership and operated with the same labor, equipment, accounting system and management (USDA's FSA).

<sup>3</sup> A RMA tract is a tract that contains at least one field, or portion thereof, that is located in the locally designated RMA, but does not contain any RPA fields.

<sup>4</sup> NRCS: the United States Department of Agriculture's Natural Resources Conservation Service

<sup>5</sup> FSA: the United States Department of Agriculture's Farm Service Agency

<sup>6</sup> Owner or landowner: Refers to the owner of record or the individual who has Power of Attorney. Where lands are owned by businesses, the conservation planner may use their discretion in determining who is ultimately responsible for the property.

<sup>7</sup> Operator: Refers to the name of the individual or corporation who manages the agricultural operations that take place on the property.

<sup>8</sup> The locality's local Bay Act Program contact as listed with the CBLAD.

<sup>9</sup> Field: A discrete unit of land managed as one unit; conservation planners should, where applicable, defer to USDA field boundaries.